

ABSTRACT

The present invention relates to a coating liquid for forming an amorphous silica-based coating film with a low dielectric constant of 2.5 or below and the Young's modulus of 6.0 GPa or more and having excellent hydrophobic property, and to a method of preparing the same. The coating liquid may contain a silicon compound obtained by hydrolyzing tetraalkyl ortho silicate (TAOS) and specific alkoxy silane (AS) in the presence of tetraalkyl ammonium hydroxide (TAAOH), or may contain a silicon compound obtained by hydrolyzing or partially hydrolyzing tetraalkyl ortho silicate (TAOS) in the presence of tetraalkyl ammonium hydroxide (TAAOH), mixing the reaction product with specific alkoxy silane or a hydrolysate or a partial hydrolysate thereof, and hydrolyzing all or a portion of the mixture according to the necessity. In addition, the coating liquid is prepared by mixing components described above at a specific ratio and under specific process conditions.